

CLAIMS

1. An arrangement in an information processing system which comprises at least one digital unit which is
5 designed to detect position data on a coded base, the coded base partly being generated from a graphical object which defines graphic information, and at least one processing unit which is designed to receive, from the digital unit, said position data and process said
10 position data according to predetermined rules, each graphical object in the system corresponding to a rule object which is assigned to said at least one processing unit to define said rules, said arrangement comprising:
a storage unit with a first interface for receiving
15 and storing graphical objects, and a second interface for exposing and reading thus stored graphical objects; and
an allocation unit which is designed to assign on command, from a position data bank, position data for a current graphical object, and to provide in the system
20 allocation data which associates said assigned position data with the current graphical object;
said arrangement allowing, by the second interface of the storage unit, selection of the current graphical object and providing, by the allocation unit, said
25 assigned position data, and thus allowing application of said graphic information and said assigned position data to a substrate for forming the coded base.
2. The arrangement as claimed in claim 1, further comprising a directing unit which is designed to direct,
30 on the basis of said allocation data, said position data from the digital unit to a current processing unit among a plurality of processing units in the system.
3. The arrangement as claimed in claim 2, wherein said allocation data comprises an address identifier
35 which is associated with a network address of said at least one processing unit.

4. The arrangement as claimed in claim 3, wherein the directing unit is designed to receive at least a subset of said position data from the digital unit, identify on the basis of said position data said address
5 identifier for the current processing unit, and send said address identifier to the digital unit.

5. The arrangement as claimed in claim 4, wherein the allocation unit is adapted to transfer said address identifier to said directing unit, preferably in response
10 to an address query from the same and based on position data included in said address query.

6. The arrangement as claimed in claim 5, wherein each graphical object is associated with a respective address identifier in the storage unit which is adapted
15 to transfer to said allocation unit said address identifier for the current processing unit.

7. The arrangement as claimed in claim 6, wherein the storage unit is adapted to provide said address identifier in connection with the reading of the current
20 graphical object through the second interface, and wherein the allocation unit is adapted to receive said address identifier in connection with the allocation of position data for the current graphical object.

8. The arrangement as claimed in any one of claims
25 2-7, wherein the directing unit is designed to fetch said allocation data from the allocation unit and to send at least a subset of said allocation data to the digital unit to be transferred to the current processing unit.

9. The arrangement as claimed in any one of claims
30 2-7, wherein the current processing unit is designed to fetch at least a subset of said allocation data when receiving said position data from the digital unit.

10. The arrangement as claimed in any one of the preceding claims, wherein said allocation data comprises
35 an object identifier which is associated with the current graphical object.

11. The arrangement as claimed in claim 10, which allows the current processing unit, when receiving said position data from said at least one digital unit, to identify said assigned rule object on the basis of said
5 object identifier.

12. The arrangement as claimed in claim 10 or 11, wherein each graphical object is assigned to an object identifier which is essentially unique in the system.

13. The arrangement as claimed in claim 12, wherein
10 all object identifiers in the system at least are stored in the storage unit.

14. The arrangement as claimed in claim 13, wherein the arrangement allows said selection of the current graphical object only if the object identifier for a select-
15 ed graphical object corresponds to one of the object identifiers stored in the storage unit.

15. The arrangement as claimed in any one of claims 10-14, wherein the object identifier is incorporated in the associated graphical object.

20 16. The arrangement as claimed in any one of claims 10-14, wherein the object identifier is computable based on the graphical object.

17. The arrangement as claimed in any one of the preceding claims, further comprising a browser unit which
25 is connected to the second interface of the storage unit and comprises a display for exposing said graphical object and a means for selecting the current graphical object among graphical objects exposed on said display.

18. The arrangement as claimed in any one of the
30 preceding claims, which is adapted to generate the coded base by printing on demand of said graphic information and said position data on said substrate.

19. The arrangement as claimed in any one of the preceding claims, wherein said position data is
35 incorporated in the coded base in the form of a computer readable position code, which is readable by means of said at least one digital unit.

20. The arrangement as claimed in any one of the preceding claims, wherein the storage unit comprises a format converter which is adapted to convert the graphical object from a first format into a second
5 format.

21. The arrangement as claimed in claim 20, wherein the first format is an image file format, such as PNG, JPEG, GIF, TIFF or PDF, and the second format is a print file format, such as Postscript or PCL.

10 22. The arrangement as claimed in any one of the preceding claims, wherein the storage unit comprises a rule object generator which is designed to generate said rule object from said graphical object, and wherein the storage unit is adapted to provide the thus generated
15 rule object in the system.

23. An arrangement in an information processing system which comprises digital units which are designed to detect position data on coded bases, each coded base being partly generated from a graphical object which
20 defines graphic information, and a plurality of processing units which are designed to receive, from the digital units, said position data and process said position data according to predetermined rules, said arrangement comprising:

25 an allocation unit which assigns, on command, position data for a current graphical object from a position data bank, and provides in the system allocation data which associates said assigned position data with the current graphical object; and

30 a directing unit which directs, on the basis of said allocation data, said position data from the digital unit to a current processing unit among the plurality of processing units in the system;

said arrangement providing, by the allocation unit,
35 said assigned position data, and thus allowing for application of said graphic information and said assigned

position data to a substrate for forming one of said coded bases.

24. The arrangement as claimed in claim 23, wherein said allocation data comprises an object identifier which
5 identifies the current graphical object in the system.

25. The arrangement as claimed in claim 24, wherein said allocation unit is arranged to receive said object identifier with the command to assign position data.

26. The arrangement as claimed in claim 24 or 25,
10 wherein the directing unit is arranged to receive and store an association between each object identifier and a network address of one of said processing units.

27. The arrangement as claimed in any one of claims 23-26, wherein said allocation data comprises an instance
15 identifier which identifies the assignment of position data.

28. The arrangement as claimed in claim 27, wherein the instance identifier identifies further graphical data which is to be applied to the substrate together with the
20 graphic information, said arrangement thereby allowing the current processing unit to access, based on said association data, said further graphical data.

29. The arrangement as claimed in claim 27 or 28, wherein the instance identifier includes said further
25 graphical data.

30. An arrangement in an information processing system which comprises digital units which are designed to detect position data on coded bases, each coded base being partly generated from a graphical object which
30 defines graphic information, and a plurality of processing units which are designed to receive, from the digital units, said position data and process said position data according to predetermined rules, said arrangement comprising:

35 an allocation unit which assigns, on command, position data for the current graphical object from a position data bank, and provides in the system allocation

data, which associates said assigned position data with a rule object which represents the current graphical object and defines the predetermined rules;

5 said arrangement providing, by the allocation unit, said assigned position data, and thus allowing for application of said graphic information and said assigned position data to a substrate for forming one of said coded bases; and

10 said arrangement providing, by the allocation unit, said allocation data, and thus allowing for one of said processing units, upon receipt of said position data, to obtain the rule object.

31. The arrangement as claimed in claim 30, further comprising a storage unit which is arranged to receive
15 and store the current graphical object, said arrangement providing, by the storage unit, the current graphical object in the system, and thus allowing for one of said processing units, upon receipt of said position data, to obtain the current graphical object.

20 32. The arrangement as claimed in claim 31, wherein said allocation unit provides in said system locating data, which identifies the location of the current graphical object in the storage unit, said arrangement providing, by the allocation unit, said locating data,
25 and thus allowing for one of said processing units, upon receipt of said position data, to locate the current graphical object.

33. An information processing system, which comprises at least one digital unit which is designed to
30 detect position data on a coded base; a processing unit which is designed to receive from the digital unit said position data and process the same according to predetermined rules, and an arrangement according to any one of claims 1-32.

35 34. A method of performing, in an information processing system, generation on demand of a position-coded base, said method comprising:

detecting a selection of a current graphical object among a set of graphical objects pre-stored in the system, each defining graphic information and corresponding to a rule object which connects at least one measure to the graphic information;

5 assigning from a position data bank position data for the current graphical object;

applying said assigned position data and the graphic information defined by the current graphical object to a substrate for forming said base; and

10 providing in the system allocation data which associates said assigned position data with the graphical object in such a manner that position data read from the base can be processed using the rule object that corresponds to the current graphical object.

35. The method as claimed in claim 34, wherein the rule object connects said at least one measure to at least one position in a local coordinate system which is defined relative to a reference point in the graphic information, which method comprises converting said read position data into at least one position in said local coordinate system prior to processing.

36. The method as claimed in claim 35, wherein said assigned position data contains at least one position in a set of positions, which is divided into predetermined groups of positions, and wherein the step of converting said read position data is carried out with knowledge of the division of the set of positions.

37. The method as claimed in claim 35, wherein said allocation data comprises a connection between said assigned position data and at least one corresponding position in said local coordinate system, and wherein the step of converting said read position data is carried out based on said allocation data.

38. The method as claimed in any one of claims 34-37, wherein said rule object defines said measures in relation to a position data reference point, which is

implicitly connected to the graphic information via a predetermined spatial interrelationship between the graphic information and the assigned position data on said substrate.

5 39. The method as claimed in any one of claims 34-38, wherein said allocation data comprises an address identifier, which is associated with a network address of a processing unit to which said rule object in the system is assigned.

10 40. The method as claimed in any one of claims 34-39, wherein said allocation data comprises an object identifier which is associated with the current graphical object.

15 41. A method of enabling, in an information processing system, printing on demand of one or more position-coded bases with graphical information thereon, said graphical information being given by a graphical object which defines a number of physical pages, said method comprising:

20 using a position code which defines a position area with a predetermined subdivision into units of equal size;

 generating, based on the graphical object, a rule object which connects at least one measure to at least one position in a local coordinate system which is defined relative to a reference point in any one of said units;

 assigning, on command, one unit for each physical page defined by the graphical object;

30 providing, in the system, position data for each assigned unit, for use in the printing of said one of more position-coded bases;

 generating allocation data which associates the position data of each assigned unit with the rule object;

35 providing, in the system, said rule object and said allocation data, for use by a processing unit that

receives position data detected on said one or more position-coded bases.

42. The method as claimed in claim 41, wherein said allocation data allows the processing unit, upon receipt
5 of said position data, to obtain the rule object.

43. The method as claimed in claim 41 or 42, further comprising providing, by a storage unit, the current graphical object in the system, and allowing the processing unit, upon receipt of said position data, to
10 obtain the current graphical object from the storage unit.

44. The method as claimed in any one of claims 41-43, further comprising providing in the system locating data, which identifies the location of the current
15 graphical object in the storage unit, and allowing the processing unit, upon receipt of said position data, to locate the current graphical object.

45. A method of enabling, in an information processing system, printing on demand of one or more
20 position-coded bases with graphical information thereon, said graphical information being given by a graphical object, said system comprising a plurality of processing units which are designed to receive position data detected by digital units on the position-coded bases and
25 to process the received position data according to predetermined rules, said method comprising:

assigning, on command, position data for a current graphical object from a position data bank;

providing said assigned position data in the system,
30 for use in the printing of said one of more position-coded bases;

generating allocation data which associates said assigned position data with the current graphical object;
and

35 directing, on the basis of said allocation data, the position data detected by one of the digital units to a

current processing unit among the plurality of processing units in the system.

46. The method as claimed in claim 45, further comprising receiving, with the command to assign position data, an object identifier which identifies the current graphical object in the system, and including said object identifier in said allocation data.

47. The method as claimed in claim 46, further comprising storing an association between each object identifier and a network address of one of said processing units, wherein said directing is effected on the basis of said allocation data and said association.

48. The method as claimed in any one of claims 45-47, further comprising generating an instance identifier which identifies the assignment of position data, and including said instance identifier in said allocation data.

49. The method as claimed in claim 48, further comprising associating the instance identifier with further graphical data which is to be included in the base together with the graphic information, thereby making said further graphical data accessible, based on said allocation data, to the current processing unit.

50. The method as claimed in claim 48 or 49, further comprising including said further graphical data in the instance identifier.